

Amendments to the Specification

Please replace paragraph 00242 with the following amended paragraph.

**[00242]** A copolymerization of isobutylene and isoprene was conducted in  $\text{CH}_2\text{FCF}_3$  at -95°C. The monomer solution was prepared by adding 95 ml of liquid isobutylene, collected at -95°C, 2.4 ml of isoprene to 300 ml of methyl chloride  $\text{CH}_2\text{FCF}_3$ , collected as a liquid at -95°C and 1.5 ml of 2-methylbutane (internal GC standard). This solution was stirred at 1000 rpm before and during the polymerization. Separately, an initiator/coinitiator solution was prepared in 50 ml of  $\text{CH}_2\text{FCF}_3$  at -85°C by adding, in order, 0.349 ml of a 0.432 mol/L hydrogen chloride solution in methyl chloride and 0.443 ml of a 1.0 mol/L solution of ethylaluminum dichloride in hexane. This solution was stirred and immediately added to a chilled addition funnel. The initiator/coinitiator solution was then slowly added to the stirred monomer solution to commence polymerization. The initiator/coinitiator solution was added such that 30 ml of this solution was added over 75 minutes. By adding the catalyst in this manner the reaction temperature was maintained below -90°C. The reaction was then quenched with the addition of 1-2 ml of methanol. The polymer was isolated by weathering off unused monomers and diluent. The polymer was dried in vacuo at 45°C to a constant weight. Yield: 59 g or 85 wt%. The copolymer contained 2.5 mol% of isoprene and exhibited a  $M_w$  of 606k with a  $M_w/M_n$  of 3.2. The plot of  $[\eta]$  (left y-axis) and  $g'$  (right y-axis) against  $M_w$  for Example 151 is given in Figure 6.